NIE 100-6-57

18 June 1957

SECRET

342

NATIONAL INTELLIGENCE ESTIMATE

NUMBER 100-6-57

NUCLEAR WEAPONS PRODUCTION IN FOURTH COUNTRIES LIKELIHOOD AND CONSEQUENCES

Submitted by the

DIRECTOR OF CENTRAL INTELLIGENCE

The following intelligence organizations participated in the preparation of this estimate: The Central Intelligence Agency and the intelligence organizations of the Departments of State, the Army, the Navy, the Air Force, The Joint Staff, and the Atomic Energy Commission.

Concurred in by the

INTELLIGENCE ADVISORY COMMITTEE

on 18 June 1957. Concurring were the Special Assistant, Intelligence, Department of State; the Assistant Chief of Staff, Intelligence, Department of the Army; the Director of Naval Intelligence; the Director of Intelligence, USAF; the Deputy Director for Intelligence, the Joint Staff; and The Atomic Energy Commission Representative to the IAC. The Assistant Director, Federal Bureau of Investigation, abstained, the subject being outside of his jurisdiction.

DOCUMENT NO. 1
NO CHANGE IN CLASS.
DECLASSIFIED
CLASS. CHANGED TO: TS S C
NEXT REVIEW DATE: 1991
AUTH: HR 70-2
DATE 23 Jul 81 REVIEWER: 6514

SECRET

CENTRAL INTELLIGENCE AGENCY

DISSEMINATION NOTICE

1. This publication was disseminated by the Central Intelligence Agency. This copy is for the information and use of the recipient indicated on the front cover and of persons under his jurisdiction on a need to know basis. Additional essential dissemination may be authorized by the following officials within their respective departments:

a. Special Assistant to the Secretary for Intelligence, for the Department of State
b. Assistant Chief of Staff, Intelligence, for the Department of the Army
c. Director of Naval Intelligence, for the Department of the Navy
d. Director of Intelligence, USAF, for the Department of the Air Force
e. Deputy Director for Intelligence, Joint Staff, for the Joint Staff
f. Director of Intelligence, AEC, for the Atomic Energy Commission
g. Assistant Director, FBI, for the Federal Bureau of Investigation
h. Assistant Director for Central Reference, CIA, for any other Department or Agency

2. This copy may be retained, or destroyed by burning in accordance with applicable security regulations, or returned to the Central Intelligence Agency by arrangement with the Office of Central Reference, CIA.

3. When this publication is disseminated overseas, the overseas recipients may retain it for a period not in excess of one year. At the end of this period, this publication should either be destroyed, returned to the forwarding agency, or permission should be requested of the forwarding agency to retain it in accordance with IAC-D-69/2, 22 June 1953.

4. The title of this estimate, when used separately from the text, should be classified:

SECRET

WARNING

This material contains information affecting the National Defense of the United States within the meaning of the espionage laws, Title 18, USC, Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

DISTRIBUTION:
White House
National Security Council
Department of State
Department of Defense
Operations Coordinating Board
Atomic Energy Commission
Federal Bureau of Investigation

NUCLEAR WEAPONS PRODUCTION IN FOURTH COUNTRIES–LIKELIHOOD AND CONSEQUENCES

THE PROBLEM

To estimate the capabilities and intentions of "fourth countries" with respect to the production of nuclear weapons over the next decade, and to estimate the consequences in terms of US national interests.

CONCLUSIONS

1. Within the next decade up to 10 countries could, by exploiting the potential of their nuclear research and power programs, produce at least a few nominal (20–40kt) nuclear weapons using only native resources. Several others could do likewise with considerable foreign assistance. However, only France, Canada, and Sweden could produce nuclear weapons within the next few years. *(Paras. 11, 13–17)*

2. Production of a diversified range and a large annual output of fission weapons would require so large an investment that we believe only France, Canada, Sweden, and possibly West Germany, could by themselves do so over the next decade. The pooling of Western European resources in a combined effort could result in significant weapons production within 10 years, or within five years if the UK were included. *(Paras. 12, 19–23)*

3. France is on the verge of a decision to develop nuclear weapons and will probably produce its first weapon in the next year or so. Sweden is also likely to produce its first weapon in about 1961. Unilateral production by France would create strong pressures in West Germany for a similar effort, though West Germany would first seek a regional arrangement to produce and control nuclear weapons. Communist China and Japan will probably seek to develop weapons production programs within the next decade, regardless of developments in Europe. *(Paras. 24–37)*

4. Independent production of nuclear weapons by fourth countries would probably be deterred, temporarily at least, by a first step disarmament agreement. However, these inhibiting effects would be transitory unless continued progress was evident toward effective controls and reduction of stockpiles. *(Paras. 39–42)*

5. Arrangements by the US to provide Western European countries with nuclear weapons on a bilateral or common pool basis would also have an important deterrent effect. However, such measures would not necessarily constitute a permanent deterrent nor would they affect

other countries who might be unwilling to accept US weapons, even if offered. *(Paras. 43–45)*

6. Unless provided with assistance in the production of nuclear weapons and the development of modern delivery systems, we believe that no individual fourth country will be able within the next 10 years to develop more than a limited nuclear capability. One result of these factors may be to discourage independent efforts in Western Europe and to induce the European powers to seek agreement on common production and control, possibly through the existing structure of EURATOM, or as the continental powers would probably prefer, through WEU, thus including the UK. *(Paras. 46–49)*

7. Fourth power production of nuclear weapons over the next 10 years is not likely to reduce their dependence on military alliances, or materially increase the likelihood of general war. However, fourth power possession might lessen susceptibilities to Soviet threats and lead such governments to assert greater independence within the Western alliance which the USSR would exploit. *(Paras. 50–51, 54)*

8. The chances of these countries precipitating local conflicts would probably not increase materially, and there will be substantial political and psychological barriers to the use of nuclear weapons in local situations. Nevertheless, toward the end of the period of this estimate, the possibility cannot be excluded that possession of nuclear capabilities by fourth powers might stimulate them to take more vigorous political action or even to use nuclear weapons in critical situations. More importantly, this estimate does not consider the possibility of radical social and political changes which might accompany or precede a fourth country's decision to embark on a major nuclear weapons program. *(Paras. 51–52)*

9. It is unlikely that the initiation of fourth power production in non-Communist states would basically alter Soviet estimates of western intentions or Soviet policies. We believe that West German production would not of itself lead the USSR to attack. *(Para. 54)*

10. Moscow would probably accommodate itself to a regional nuclear weapons program of Western European countries but would seek to exploit any resulting loosening in the ties between the US and the European group. *(Para. 55)*

DISCUSSION

I. CAPABILITIES OF FOURTH COUNTRIES

11. Within the next decade a small number of countries can develop the capability to produce nuclear weapons using only native resources. Most of these countries possess suitable uranium ores. Others possess lower quality ores which may become usable as improved processing techniques are developed. National and cooperative international programs for establishing research and power reactors are developing cadres of competent scientific manpower. Once a nation has a civilian atomic energy program encompassing fairly large reactors and processing facilities it requires only relatively little investment in an ordnance laboratory and research in weapons design to initiate a weapons program. To produce a single weapon would require only a few kilograms (perhaps less than 10) of plutonium such as could be produced in large

research reactors or in nuclear power plants. Nuclear weapons could be produced clandestinely through concealed diversion of plutonium from inspected power plants, but they would almost certainly be low-yield, relatively crude fission weapons.

12. More substantial weapons programs designed to achieve a large annual output of fission weapons, the development of a diversified range of such weapons or, as a further step, the fabrication of thermonuclear weapons would require the construction of specialized facilities. These would consist for example of large plutonium producing reactors [1] and isotope separation plants if U–235 is to be obtained. Extensive weapons fabrication, development, and testing facilities would also be required. The investment required by such a substantial program in terms of money, manpower, energy, natural resources, and skills is so large, particularly for production of U–235, that we believe only a few fourth countries could by themselves achieve such a program over the next decade.

13. Based on the current status of their nuclear energy program, we believe that the following countries could produce their first nuclear weapons using only native resources as follows:

France—in 1958
Sweden—in 1961
Canada—Sufficient plutonium has been available for several years to produce weapons and production would be possible within a year of a decision to fabricate a weapon.

In France, plutonium in weapons quantities is now beginning to become available and planned production facilities will be developed to the point that nominal weapons in the range of 20 to 40 kt could be produced at an annual rate of 3 in 1958, 50 in 1962, and 110 in 1967, making no allowance for use of plutonium as a reactor fuel. If completed as presently scheduled, plutonium production facilities in Sweden could support the annual production of 10 such weapons in 1961, 35 in 1964, and 65 in 1967. Current Canadian production of plutonium is sufficient to produce only one nominal weapon per year but would reach the level to support the production of 35 per year in 1965 if the present program for reactor construction is carried out. In each case, the receipt of weapons grade fissionable material from foreign sources would accelerate the development of a weapons stockpile. Receipt of design information on tested weapons would permit Canada and France to commence weapons stockpiling within six months or less.[2]

14. Within the next few years no other country will have the capability for nuclear weapons production using only domestic resources. If entirely dependent upon its own supplies of low-grade ores for fissionable materials, West Germany could probably commence weapons production only near the end of the 10 year period of this estimate. However, if given unrestricted access to high-grade uranium ores, or to the fissionable material output of the planned power reactor, West Germany could commence weapons production within five years from the date of decision, and in a shorter time if additional facilities are designed and built under extremely high priorities.

15. Belgium could commence weapons production without further foreign assistance by 1967. Japan could also produce weapons within 10 years if it were given unrestricted access to uranium supplies or if it were able to exploit recently reported uranium deposits to provide reactor fuels. India and Italy could do so only by extraordinary efforts and by assigning the highest priority to a weapons program. Czechoslovakia and East Germany, and to a somewhat lesser extent Poland, possess the necessary resources for a nuclear weapons program but are only in the early experimental stages of nuclear energy programs. Switzerland, Norway, and the Netherlands would require unrestricted access to uranium supplies or control of fissionable ma-

[1] In some cases these might be dual-purpose reactors.

[2] Both France and Canada could produce more refined weapons types. However, production figures and time lags would vary considerably if large-yield or more efficient weapons were developed.

terial from planned power reactors to develop weapons programs within the next 10 years.

16. Compared with countries discussed above, Communist China, Australia, and Israel possess fewer of the requirements for a successful program and would require major foreign assistance to produce even the first weapon within the next 10 years. However, the early steps in a nuclear energy development program are already under way in Communist China with Soviet assistance, and in Australia and Israel with assistance from the UK and the US.

17. None of the countries listed in paragraphs 15–16 above is likely to have the capability over the next 10 years to produce enough weapons grade fissionable material to support the production of more than a few nominal weapons. The time required for developing a production capability in weapons grade fissionable material could be reduced two to five years in almost every case if foreign assistance were provided in the following fields over the next few years.

a. Design and construction of a nuclear reactor (for example, a fairly large research reactor or natural uranium power reactor).

b. A supply of the necessary fuel for the reactor.

c. Design and construction of facilities for fabrication of fuel elements and for separation of plutonium.

18. No Latin American country, left entirely to its own resources, will be able to produce nuclear weapons within the next 10 years.

19. We believe it possible, although improbable that France, Sweden, Canada, and West Germany by making an all-out effort could develop the capability to produce a few thermonuclear or other high-yield weapons (500 kt or above) within 10 years. Production of such weapons would require the attainment of both well rounded weapons development, including testing, and fissionable materials production programs.

20. A combined effort by the nations making up the EURATOM community would not significantly accelerate the production of the first few nominal weapons. Production of these first weapons, starting in 1958, would result primarily from the French effort. However, such a combined effort could produce in the next 10 years a common stockpile of nuclear weapons of significant size and variety. The immediate assets of such a combination would be the French plutonium production and processing facilities, French and Belgian uranium ores, West German scientific and industrial capabilities, and French, Dutch, and Belgian reactor technology. The pooling of these assets and of financial contributions would permit within two or three years the construction of an isotope separation facility and the expansion of plutonium production facilities. With both plutonium and uranium-235 available in quantity for weapons use, the numbers and yields of weapons would be dependent largely on the success of the weapons development program and associated testing. West German scientific and technical capabilities would be an important factor in improving the quality of the weapons developed.

21. The addition of the UK to the above community effort, thus encompassing the W.E.U., would provide highly significant additional weapons technology and fissionable materials production facilities. Weapons production by the combined W.E.U. countries could be significant within the next five years.

22. A technological breakthrough or successful espionage could markedly increase the capabilities of the countries discussed in this paper, but probably would not enlarge the list of those countries able to produce nuclear weapons within the next 10 years.

23. In order to translate nuclear weapons production into a meaningful military capability, weapons delivery systems must be developed. Of course, a country possessing a few nominal weapons could deliver them by unorthodox or crude means against an unsuspecting or unprepared enemy. However, the costs of developing and producing refined weapons delivery systems and compatible nuclear weapons appropriate to the varying military requirements are high. Unless provided with both nuclear weapons design and assistance in development of delivery systems, we believe

that individual fourth countries will not be able within the next 10 years to develop more than limited capabilities in these fields. If the combined resources of the Western European powers were directed to the development of refined weapons and delivery systems, we believe that a sizable nuclear capability could probably be developed towards the end of the 10 year period.

II. PROBABLE COURSES OF ACTION IN FOURTH COUNTRIES IN THE ABSENCE OF OUTSIDE DETERRENTS

24. At the moment France is on the the verge of deciding to undertake a nuclear weapons production program. Several obstacles stand in the path of this French decision. The principal impediment is the opposition of a large part of the general public. Some French officials are also concerned that production by France will influence other countries, notably West Germany, to follow its example. Moreover, they are fearful that a unilateral French nuclear weapons program might result in adverse effects on NATO's political solidarity, and on the maintenance of the NATO shield of conventional forces.

25. However, support for an independent nuclear weapons program is growing in France. In particular there is a belief that independent production of nuclear weapons is necessary to restore French prestige and to re-establish France's status as a great power. There is also a desire to be prepared for the contingency of a withdrawal of US forces from Europe and the possibility that the US, in an age of nuclear parity and ballistic missiles, might fail to stand firmly with Europe against Soviet threats. Unless other deterrents come into play, we believe that the French will within the next year or so initiate the production of nuclear weapons.

26. West Germany is prohibited from the manufacture of nuclear weapons on its own territory under the Paris Agreements of 1954. A substantial majority of the German public is at present opposed to the acquisition or manufacture of atomic weapons, and even to the storage of US weapons on German soil. With a national election campaign underway, the government is careful not to take a firm position regarding nuclear weapons which would give the opposition an occasion to accuse it of recklessness. Any attempt by a West German government to move precipitately into the manufacture of nuclear weapons would create a crisis, not only within WEU, but in West German politics.

27. Chancellor Adenauer appears to believe that in the absence of a disarmament agreement all NATO defense forces should be armed with nuclear weapons and that their composition, armament, and disposition in Western Europe should be a matter of community, rather than purely national concern. His government's position appears to be one which is politically practicable from a domestic point of view, and one which a successor government might also follow.

28. However, in the event of a unilateral French decision to produce nuclear weapons, there would almost certainly be a growth of sentiment favoring similar action in West Germany. Nevertheless, the initial reaction of the government would probably be in the direction of increased efforts to secure agreements within NATO, WEU, or some continental grouping for the development of common nuclear capabilities under a unified control. Assuming that extensive efforts in this direction had failed, we believe that in time any West German government would probably respond to almost irresistible national pressures to undertake an independent program of nuclear weapons production, despite the difficulties to be surmounted in the way of low grade uranium and the restrictions of the Paris Agreements. The delay involved in making this decision would probably be somewhat greater if the government were controlled by the SPD.

29. In Sweden, there will not be sufficient production of plutonium to start weapons production until 1961. Although a vocal minority opposes equipping Sweden's armed forces with nuclear weapons, public opinion in general appears to support the government view that nuclear weapons are essential to Sweden's defense. The prestige issue is practically absent

in Sweden, but Swedish leaders believe that maintenance of Sweden's traditional policy of armed neutrality requires that nuclear weapons be produced in Sweden and not procured through adherence to Western defense systems. We believe, therefore, that in the absence of substantial progress in disarmament, Sweden will initiate production of nuclear weapons as the necessary materials become available.

30. French and Swedish decisions to produce nuclear weapons would not necessarily spark immediate nuclear weapons production efforts in other Western European states. However, Italy, Belgium, and the Netherlands, would probably join West Germany in a call for the establishment of some type of common pool which would make nuclear weapons available to their own forces and in the absence of such an arrangement one or more might go ahead with independent production efforts. Switzerland might also undertake production in order to enhance respect for its neutral position.

31. Canada has the capability to produce nuclear weapons at an early date, but the government and the people appear satisfied to depend on the US nuclear stockpile. This situation will probably persist for some time, but the Canadians are likely to become increasingly insistent on obtaining nuclear weapons from the US for air defense purposes, particularly if other fourth countries acquire nuclear capabilities. If, under these circumstances, the US was not responsive, Canada would almost certainly undertake domestic production of nuclear weapons.

32. Japanese policy with respect to the production of nuclear weapons is likely to be determined primarily by domestic and regional considerations with developments in Europe having only a marginal influence. Because of present popular opposition there is no prospect of an early Japanese effort at production. However, Japan's defense planners and a small but influential conservative elite view domestic production of nuclear weapons as essential to Japan's defense and to the establishment of Japan as a leading power in Asia. These views have been circulated in the Diet and are probably supported by Prime Minister Kishi.

33. While Japanese opponents of nuclear weapons are extremely vocal at present, considerable work is being done in the area of peaceful uses, which will probably serve in time to develop a less emotional public approach toward military uses as well as contributing to the potential for a military program. We believe Kishi will be successful in strengthening the overall conservative party position, and that the Japanese government will probably take the initiative in building public support for nuclear weapons production. Thus the chances now appear at least even that Japan will undertake the initial steps in a nuclear weapons production program within five years.

34. Chinese Communist leaders almost certainly aspire to the domestic production of nuclear weapons in order to advance Communist China's claims to great power status, to enhance its prestige and power in Asia, and eventually to lessen dependence on the USSR and to build a deterrent to the use of US nuclear forces in the Far East. Accordingly, although evidence on the matter is lacking, we believe that the Chinese Communists have already decided that they will eventually produce weapons. To implement such a program Communist China would need to obtain substantial scientific and technical support from the USSR and the probable desire of Soviet leaders to limit Communist China's power for independent action may constitute an initial impediment. We believe, however, that they would not for long deny Chinese requests for assistance. Peiping has already announced that a Soviet-granted nuclear research reactor of 7,000 kilowatts will be completed this year. Soviet assistance in processing Chinese uranium for domestic use is likely and limited sharing of experience in weapons design and testing is possible in the future. Even with Soviet assistance a nuclear weapons program would require diversion of resources urgently needed for basic economic development.

35. We believe, that the Chinese Communists will be reluctant to make such diversions, that

they will develop a nuclear weapons program only gradually, and that weapons production will not reach significant proportions within the next 10 years. The Chinese Communists will almost certainly attempt to gain political advantages in Asia from vocal opposition to the testing, production, and use of nuclear weapons, even though engaged in the development of a nuclear weapons program.

36. Nuclear weapons production does not appear likely in any other fourth country within the next 10 years. However, Israel would almost certainly attempt to achieve nuclear capabilities if it could obtain fissionable material and the necessary financing. Indian opposition to possession or production of nuclear weapons might decline if Communist China were known to possess nuclear weapons.

37. We believe that the USSR would not give its consent to independent nuclear weapons production in East Germany and Czechoslovakia, the two satellites with the greatest potential for production over the next 10 years. The USSR will almost certainly feel that any requirements for the physical location of nuclear weapons in Eastern Europe can best be satisfied by the stationing of its own nuclear-equipped forces in the area. However, if nuclear weapons production is undertaken by the Western European community, the USSR might sponsor a joint program for members of the Warsaw Pact. If so, it would retain effective control of the use of nuclear weapons by member states.

III. POSSIBLE EXTERNAL DETERRENTS TO NUCLEAR WEAPONS PRODUCTION IN FOURTH COUNTRIES

38. The clauses restricting military use which are contained in the statute of the International Atomic Energy Agency (IAEA) and in US, UK, and Canadian bilaterals will not preclude the production of nuclear weapons in certain fourth countries. For example neither France nor Sweden is dependent on foreign assistance, and West Germany and Japan may be able to exploit their own supplies of low-grade uranium or obtain access to higher quality ores in other countries. Moreover, the USSR has indicated a willingness to supply research reactors on a bilateral basis without apparent restriction on the use of reactor by-products.

Effects of Disarmament Agreements on Fourth Countries

39. The disarmament discussions underway in London, and particularly the informal bilateral talks between the US and Soviet officials, have touched on the subject of fourth power possession of atomic weapons. An agreement among the three atomic powers for a provisional curtailment of nuclear tests together with inspected prohibition of future production of fissionable materials for weapons purposes would, at least for some time, create formidable popular expectations for disarmament and strong public pressures against the initiation of weapons production in fourth countries.

40. The country most immediately affected would be France, where popular pressure would probably force the government to postpone a decision to produce. However, unless an agreement were followed fairly quickly by effective implementation, by agreements to reduce nuclear weapons stockpiles, and by a clear demonstration that the nuclear powers intended to abide by these agreements in the future, France probably would not renounce its right to nuclear weapons production and, in time, would probably begin to produce its own weapons.

41. Once such agreements failed to deter France, West Germany would probably also feel compelled to acquire nuclear weapons, preferably through a common pool but by independent efforts, if necessary. In Japan, popular opposition to nuclear weapons is currently so great as to induce the government to accept any agreement that imposed no greater restrictions on Japan than on other fourth powers. As the nuclear energy program in Japan progresses, Japan would become more reluctant to restrict its right to make weapons and would probably do so only as part of an arrangement which required a drastic reduction of the stockpiles of the major nuclear powers.

42. Finally, the Chinese Communists are not likely to be deterred from nuclear weapons production by a limited disarmament agreement except insofar as they may be deterred by Soviet adherence and possible actions resulting therefrom, e.g., Soviet withholding of assistance from China for development of a weapons program.

Effects of provision of Nuclear Weapons to Fourth Countries in the Absence of Disarmament Agreements

43. Agreement by the US to supply up-to-date nuclear weapons to its European allies in various sizes and in some quantity would probably tend to deter production by these countries at least for a time. Such a move would almost certainly be an effective deterrent if the weapons were provided without restriction to use. Short of supplying nuclear weapons on an unrestricted individual country basis, allied desires might be satisfied for some time by a US transfer of nuclear weapons to a NATO pool. If reaching and implementing such an agreement took a long time—as we believe likely—the French would probably undertake to produce a few nominal weapons which would satisfy their desire to demonstrate their capability.

44. Similar measures would be less effective elsewhere in solving the fourth power problem. Sweden would fear that acceptance of US weapons would compromise its neutral status. The Japanese government probably believes that if nuclear weapons are to be accepted by the Japanese people, they must come at least initially from a purely national program with no direct ties or commitments to the US. In a period of crisis the Chinese Communists might accede to or even request the stationing of Soviet nuclear weapon units in China as a temporary measure. However, we believe that the Chinese Communists would not regard this as a satisfactory long term solution and that they would continue to press the USSR for assistance in developing an independent capability.

45. While it might be possible to defer independent production in some countries by making nuclear weapons available from US, UK, or Soviet stocks, it is almost certain that over the next decade an increasing number of countries will obtain possession of nuclear weapons and that effective international controls will be increasingly difficult to achieve. There is a belief that the adoption of nuclear weapons would lead to economies in defense budgets and manpower. Moreover, despite the widespread popular opposition to the testing, possession, and use of nuclear weapons, governments are increasingly bent on acquiring nuclear weapons in order to modernize their defense systems and to increase their freedom of political action.

IV. CONSEQUENCES OF FOURTH POWER PRODUCTION

46. Regardless of fourth countries estimates of their needs for nuclear weapons and delivery systems, actual production will be limited by the high costs involved. As indicated in paragraph 23, we believe that individual fourth countries will be able to develop only limited nuclear capabilities within the next 10 years. One consequence of the difficulties and costs of developing refined nuclear capabilities may be to discourage independent efforts in Western Europe. This would supplement other motives, such as fear of weapons rivalries, for cooperative efforts in Western Europe. Once the ability to produce a nuclear weapon has been demonstrated and experience obtained with the costs and problems involved, the European powers might accordingly attempt to reach agreement on common production and control.

47. A common approach could be carried out through the WEU by its seven members. This would involve the support of the UK which would probably view such a development as a desirable alternative to independent French or German production. Because of intimate US-British defense ties, the UK would probably seek US concurrence before it would envisage undertaking this program with the Continent.

48. An alternative approach might be through EURATOM, if ratified, or some other or-

ganization limited to the Six. Although EURATOM was designed to assist in developing peaceful uses of nuclear energy, the EURATOM community could modify its program in order to produce or coordinate the production of such weapons. The EURATOM solution would probably be less acceptable politically than one which would include the UK. For one reason, the French especially would prefer UK participation in order to offset possible German domination of the pool. For another, the French would also resent an arrangement which would submit France, but not the UK, to some measure of community control.

49. A European community could, as noted in paragraph 23, achieve a sizable nuclear capability, and might hence become somewhat less susceptible to Soviet threats. Its independent capability to deter the USSR would, however, remain uncertain for many years. Hence for some time to come the members of the community would probably continue to regard alliance with the US as essential. Yet the fact that they had acquired their nuclear capability largely as a result of their own effort, and the experience in cooperation gained in the very act of that effort would tend to give them an increased solidarity and a feeling of independence which might render them less responsive to US policy.

50. Production of nuclear weapons by any of the fourth countries which are likely to achieve significant nuclear capability over the next 10 years is not likely to increase materially the chances of general war whether deliberately initiated or resulting from the expansion of a local conflict. Such fourth countries will realize that their ability to challenge either the US or the USSR has not increased significantly and neither Communist China nor any Western power would be more likely to precipitate a situation which could lead to general war.

51. The chances of these countries precipitating local conflicts also would probably not increase materially, and there will be substantial political and psychological bars to the use of nuclear weapons in local situations. Nevertheless, towards the end of the period of this estimate and as their nuclear capabilities increase some countries might be stimulated to take more vigorous political action in support of individual national interests. As capabilities increase and possession spread, the possibility cannot be excluded that nuclear weapons might be used by fourth countries in critical situations. Whether or not such conflicts would spread would depend in part on the degree to which interests of the great powers were involved and on the restraining effects of the overall nuclear situation.

52. The estimates in the two preceding paragraphs cannot, of course take account of all conceivable events such as the acquisition of control over nuclear weapons by an irresponsible government. Most important, it has omitted from consideration the possibility of radical changes in the social and political character of the countries with which it deals, particularly those which might accompany or precede a decision to embark on a major nuclear weapons program and which could in themselves have profound effects.

Soviet Reactions to Fourth Power Production

53. The possible spread to fourth countries of a nuclear weapons manufacturing capability, has apparently not been a matter of major concern to the USSR, although Soviet officials in the current London disarmament talks have appeared to show some interest in the subject. Soviet representatives did not take the initiative in writing the safeguard clauses into the IAEA statute and have not taken up the US suggestion that the bilateral peaceful uses program of the US and the USSR adopt IAEA safeguard standards. Moscow's apparent indifference may have derived from estimates that fourth power production lay in the relatively remote future, and that fourth power production when it did occur would hardly be sufficient to alter the general magnitude of the existing threat.

54. It is unlikely that the actual initiation of fourth power production in non-Communist states would basically alter Soviet estimates

of Western intentions or Soviet policies. Soviet threats would almost certainly be forthcoming; West German production would probably cause new and sharper threats but of itself would probably not lead the USSR to attack West Germany. Moreover, the Soviet leaders would probably calculate that neither West Germany nor any other fourth country could develop a nuclear capability of such magnitude as to outweigh the deterrent posed by the USSR's much more formidable capability. The USSR would probably seek to derive what benefit it could by exploiting any moves these countries might make to assert greater independence within the Western alliance.

55. Moscow would probably accommodate itself to a regional nuclear weapons program of Western European countries. The USSR would seek to exploit any suspicion that the partners of such a regional effort might have of Germany, and it would certainly seek to maximize any loosening in the ties between the US and the European group that might develop from an independent European program. If such a regional program left room for control of weapons by individual countries, particularly Germany, or if the USSR believed that Germany would be able to use community resources to advance German interests in the East, the Soviet leaders would be made more uneasy but would probably react in much the same way as they would to an independent German program.

56. The degree of Soviet concern would be heightened if the US and the UK embarked on a definite program either of equipping their allies, particularly European, with nuclear weapons and delivery systems or of substantially supporting production efforts. However, this action alone would probably not lead the USSR to conclude that the West under US direction was planning to launch general war. Among the countermeasures Moscow might take would be the publicly-announced stationing of Soviet nuclear forces in Eastern Europe as well as a publicized increase in the military budget. Such measures would be accompanied by diplomatic and propaganda moves designed to drive home the vulnerability of Western Europe to Soviet military action and to stimulate public anxieties and opposition to the Western buildup.

57. Moscow probably would not regard a Japanese nuclear weapons program as materially affecting its own military position, but would find it difficult to resist Chinese Communist requests for support of a similar weapons program in China.

58. The acquisition by the Chinese Communist regime of nuclear weapons would not alter Peiping's basic international orientation and policies. Peiping would continue to recognize its fundamental dependence on the USSR for strategic security.

59. Communist China would probably estimate that the intimidating effect on neighboring countries of its military strength had been increased measurably. With nuclear weapons of its own, Communist China might be able to look with somewhat greater equanimity upon the prospect that another Asian country, such as Japan or Nationalist China, might acquire nuclear weapons. At the same time, Peiping would probably recognize that its possession of nuclear weapons might constitute a serious irritant to relations with other Asian countries, notably India. Peiping might attempt to maintain approximately the present balance in its policies between threat and intimidation and expression of "peaceful" intent. To the latter end, Communist China would probably join in Soviet disarmament and weapons control proposals, recognizing that with nuclear weapons at its disposal its views on disarmament and control would have considerably more international impact.

60. The possession of nuclear weapons probably would not of itself lead Peiping to resume its expansionist military policies in Korea, the Taiwan Straits, or Indochina, since the deterrent effect of the threat of US counteraction would remain.